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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,818	12/01/2003	Robert Beach	022.0118C1 (612A)	3623
80558 7590 11/26/2008 INGRASSIA FISHER & LORENZ, P.C. (Symbol) 7010 E. COCHISE ROAD SCOTTSDALE, AZ 85253-1406				
EXAMINER AGA, SORI A				
ART UNIT 2419		PAPER NUMBER		
NOTIFICATION DATE 11/26/2008		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@ifllaw.com

### Office Action Summary

**Application No.**

10/725,818

**Applicant(s)**

BEACH ET AL.

**Examiner**

SORI A. AGA

**Art Unit**

2419

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2,8-13 and 15-23 is/are pending in the application.
- 4a) Of the above claim(s) 13 and 15-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 8-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/08)
- Paper No(s)/Mail Date 09/30/2008
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/30/2008 has been entered.

Claims 1, 2 and 8-13 and 15-23 are pending. Claims 13 and 15-23 have been previously withdrawn from consideration.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krebs et al. (US 4,519,068) (herein after Krebs) in view of Comer (US 5,610,973) (herein after Comer) and Mahany et al. (US 5,790,536) (herein after Mahany).

*Regarding claim 1*, Krebs teaches General Communications Controller [fig. 1 '104'] (data switching hub) through which data communication is provided between a host computer [fig. 1 '102'] (central computer) and portable radios [fig. 1 '130', '132', '134', '136'] (mobile units) via Channel Communications Modules-CCM [fig. 1 '106', '108', '110' and '112'] connected to transmitter and receivers ('channel communications modules' together with the 'transmitters' and 'receivers' make up access points) [see also Column 8 lines 38-40, 44-48].

Krebs also teaches The General Communications Controller (herein after GCC) (data switching hub) routes message signals (data) to selected CCM (Access Points) based on the location of the portable radio (mobile units) and the serving CCM (Access Point) [Column 8 lines 38-48].

Regarding the Access points each providing a conduit for communications independent of destination address; Krebs teaches that each mobile station compares the address included in the headers of received messages with its own address and decides whether to process the data or not (filters data bits that belong to the mobile station) [Column 16 lines 41-44]. It is therefore inherent that the CCM/transmitters and receivers mentioned in Krebs provide communications to the mobile units independently of destination address.

However, Krebs does not explicitly teach providing a functionality of a wireless communication standard protocol. However, Comer in the same field of endeavor teaches employing IS-41 (wireless communication standard protocol) [column 9 lines 29-31]. It would have been obvious at the time of the invention for a person having ordinary skill in the art to employ IS-41 in Krebe's wireless system in order to enable inter-system handoff and call delivery.

However, Krebs does not explicitly teach the mobile units monitor polling signals from the access points and associate therewith for purposes of data communications in accordance with the wireless communications standard protocol. However, Mahany teaches a master mobile device monitors HELLO messages (polling signals) from access points [see column 54 lines 19-21]. Mahany also teaches the master mobile device starts sending/receiving data with the access point if it is determined there is a need for data transfer [see column 54 lines 25-28]. Mahany also teaches the HELLO message could be according to one or more protocols [see column 54 lines 25-28]. It would have been obvious for a person having ordinary skill in the art to make the mobile units monitor polling signals from the access points and associate therewith for purposes of data communications in accordance with the wireless communications standard protocol. This is desirable because it will allow mobile devices to efficiently use power resources and also utilize soft handoffs while in a communication session.

2. Claims 2, 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krebs, Comer and Mahany as applied to claim 1 above and further in view of Ahearn et al. (US 5,926,463) (herein after Ahearn).

***Regarding claim 2,*** Krebs in view of Comer, Mahany and Ahearn teach all the limitations of claim 1 as disused above. Regarding the hub being arranged to maintain a routing list correlating source address data with ports of the switching hub; Krebs teaches that the GCC maintains a list (routing list) associating transmitters and the zone served by the transmitters with other information associated with the portable radio [column 9 lines 46-48 and lines 54-56].

However, Krebs does not explicitly teach that the GCC (hub) monitors source address. However, Ahearn in the same field of endeavor, teaches that an intelligent switch looks at source addresses and build a look-up table used to decide which of the links (corresponding nodes) should be used to forward the frame [column 2 lines 8-17].

Therefore, it would have been obvious, at the time of the invention for a person having ordinary skill in the art, to include a table that is created and maintained by monitoring source addresses contained in frames passing though the CCM (routing switch). This is useful since it is necessary that the GCC to have a reasonably accurate determination of the location of each portable radio [Krebs column 8 lines 43-45].

***Regarding claim 8:***

- Regarding the method of connecting central computer with switching hub and plurality of access points with the ports of the switching hub; Krebs teaches that a host computer [fig. 1 '102'] (central computer) is coupled to (connecting) the GCC (hub) over a telephone line and modem (wired data communication network) [column 3 lines 48-49].
- Krebs also teaches CCMs (access points) are connected to the GCC (switching hub) [column 3 line 48-50].
- Krebs also teaches that the mobile units are associated with respective mobile units which serve selected zones containing selected mobile units [column 8 lines 44-49; column 9 lines 46-48].
- Krebs teaches received message includes data block including stations address [column 1 lines 50 and 54]. Krebs also teaches that this address is read and verified by the GCC to determine if this address is assigned to an active and valid portable radio. Therefore, Krebs teaches that the data received by the GCC includes address of targeted portable unit (destination address each identifying a mobile unit).
- Krebs also teaches the mobile and portable radios communicate with the GCC by way of the CCMs ( the CCM (hub) is operated to relay data communications network to said access points) [column 8 lines 38-40].
- Regarding the transmitters relaying said data independently of the destination addresses; Krebs also teaches the Access Points relay data communications to the mobile units by radio communications independently of destination address as discussed above regarding claim 1. However, Krebs does not explicitly teach

maintaining a routing list. However, Ahearn in the same field of endeavor teaches building a table (maintaining a routing list) that is used to decide which of the links (corresponding nodes) should be used to forward the frame [column 2 lines 8-17]. Therefore, a person having ordinary skill in the art would have been motivated by Ahearn to include a table that is created and maintained by monitoring source addresses contained in frames passing through the CCM (routing switch). This is useful since it is necessary that the GCC to have a reasonably accurate determination of the location of each portable radio.

However, Krebs does not explicitly teach a functionality of a wireless communications standards protocol. However, Comer in the same field of endeavor teaches employing IS-41 (wireless communication standard protocol) [column 9 lines 29-31]. It would have been obvious at the time of the invention for a person having ordinary skill in the art to employ IS-41 in Krebs's wireless system in order to enable inter-system handoff and call delivery.

However, Krebs does not explicitly teach generating, at the access points, polling signals; monitoring, at the mobile units, the polling signals and the polling signals are specified by the wireless communication protocol. However, Mahany teaches a master mobile device monitors HELLO messages (polling signals) generated at the access points [see column 54 lines 19-21]. Mahany also teaches the master mobile device starts sending/receiving data with the access point if it is determined there is a need for data transfer [see column 54 lines 25-28]. Mahany also teaches the HELLO message could be



according to one or more protocols [see **column 54 lines 25-28**]. It would have been obvious for a person having ordinary skill in the art to make the mobile units monitor polling signals generated at the access points and associate therewith for purposes of data communications in accordance with the wireless communications standard protocol. This is desirable because it will allow mobile devices to efficiently use power resources and also utilize soft handoffs while in a communication session.

***Regarding claim 9***, Krebs in view of Comer, Mahany and Ahearn teach all the limitations of claim 8 as discussed above. Krebs also teaches that the CCMs are not used to transmit messages directed at mobile units associated with other access points [**column 8 lines 41-42**].

***Regarding claim 10***, Krebs teaches that the GCC (hub) receives message signals from mobile radios by way of CCM (Access points) [**column 3 lines 52-54**] (data communication is provided from mobile units to the access points). Krebs also teaches that the basic information unit in the system includes channel data block, which includes stations address [**column 1 lines 50 and 54; column 6 line 38; column 14 line 4**].

Krebs also teaches data is relayed the access points to the switching hub [**column 3 lines 52-54**].

Krebs also teaches that the GCC (switching hub) is used to relay data from CCM (access points) to the host computer (wired network) which in turn is connected to other GCCs

(and GCCs are connected to other access points). [Column 3 lines 42-45] However, Krebs does not explicitly teach that the GCC (hub) uses source address to update a routing list and use said list to selectively provide data communication. However, Ahearn in the same field of endeavor, teaches that an intelligent switch looks at source addresses contained in a frame and build a look-up table which is used to decide which of the links (corresponding nodes) should be used to forward the frame [column 2 lines 8-17]. Therefore, it would have been obvious for a person having ordinary skill in the art, at the time of the invention, to include a table that is created and maintained by monitoring source addresses contained in frames passing through the CCM (routing switch). This is useful since it is necessary that the GCC to have a reasonably accurate determination of the location of each portable radio [Krebs column 8 lines 43-45].

3. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krebs, Comer, Ahearn and Mahany as applied to claim 8 above, and further in view of Mitts et al. (US 5,912,885) (herein after Mitts).

*Regarding claims 11 and 12*, Krebs in view of Comer, Mahany and Ahearn teaches all the limitations of claim 10 as discussed above. Said references teach that data messages including addresses of mobile units cause the hub to update a routing list with their addresses as discussed above regarding claim 10.

Krebs also teaches that the mobile units are associated with one or more zones which in turn are associated with access points for data communication. [Column 8 lines 44-49; column 9 lines 46-48]

However, Krebs does not explicitly teach that the mobile units and access points are arranged to send a message upon said association of mobile units with access points. However, Mitts in the same field of endeavor, teaches that a mobile terminal (mobile unit) sends a request (send data communication message) to a new access point when it observes that the connection on the access point it is associated with is weakening. Mitts also teaches that the access point sends the message to the switch (switching hub) [column 5 lines 20-24]. Therefore, it would have been obvious, at the time of the invention, for a person having ordinary skill in the art, to arrange the mobile units and access points to send a message upon said association of mobile units with access points in order to enable the GCC to have a reasonably accurate determination of the location of each portable radio in a reasonable pace (as soon as a mobile unit becomes associated with an access point).

#### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1 and 8 as amended have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SORI A. AGA whose telephone number is (571)270-1868. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571)272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. A. A./  
Examiner, Art Unit 2419

/Salman Ahmed/  
Examiner, Art Unit 2419